DEVELOPMENT STANDARD 11-01.0 EXCAVATION AND GRADING

11-01.1.0 GENERAL

1.1 Purpose. The purpose of this standard is to safeguard life, limb, property and the public welfare by regulating grading on private property.

1.2 Scope. This appendix sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction.

11-01.2.0 PERMITS REQUIRED

2.1 Permits

A. Except as specified in DS 11-01.3.2., no person shall do any grading without first having obtained a grading permit from the Development Services Department (DSD).

B. No person shall do any grubbing on any site or portion thereof without first having obtained a grading permit from DSD. No grubbing shall occur on any land except where grading has been approved.

C. Grading permits may be issued for single or multiple building sites, not to exceed 35 acres per permit.

D. The grubbing/grading and construction of a site shall be continuous until the grubbing/grading and construction on that building site are completed.

2.2 Exempted Work A grading permit is not required for the following:

A. When approved by DSD, grading in an isolated, self-contained area if there is no danger to private or public property.

B. An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation or exempt any excavation having an unsupported height greater than 5 feet (1524 mm) after the completion of such structure.

C. Cemetery graves.

D. Refuse disposal sites controlled by other regulations.

E. Excavations for wells or tunnels or utilities.

F. Mining quarrying, excavation, processing stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property, “except as such activities are regulated by code or other regulations of this jurisdiction”.

G. Exploratory excavations under the direction of soil engineers or engineering geologists.

H. An excavation which (1) is less than 2 feet (610 mm) in depth, or (2) which does not create a cut slope greater than 5 feet (1524 mm) in height and steeper than 1 unit vertical in 1 ½ units horizontal (66.7% slope).

I. A fill less than 1 foot (305 mm) in depth and placed on natural terrain with a slope flatter than 1 unit vertical in 5 units horizontal (20% slope), or less than 3 feet (914 mm) in depth, not intended to support structures, which does not exceed 50 cubic yards (38.3m3) on any one lot and does not obstruct a drainage course.

NOTE: Exemption from the permit requirements of this chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this jurisdiction.

2.3 Reseeding

A. For any site one acre or greater or portion thereof which has been wholly or partially grubbed or wholly or partially graded, construction shall commence and shall be continuous within sixty (60) days after grubbing. Should construction or grading not commence or be continuous within the required sixty- (60) day period, the site shall be native seeded within thirty (30) days following the expiration of the required sixty (60) day period. When approved by the Director of Development Services Department (DSD), a time extension may be granted for conditions beyond the control of the permitted for items such as flooding or the discovery of historic artifacts.

B. In order to insure conformance with the requirements of paragraphs A and C of this section, a performance bond or other suitable surety in an amount sufficient to accomplish native seeding of the site shall be posted prior to issuance of a grading permit. Any surety provided pursuant to this subsection shall be returned upon completion of an approved final inspection for the building site or one year plant establishment period and acceptance of the permit covered by this chapter.

C. Any site which has been graded or grubbed without a permit shall in addition to other penalties provided by law be revegetated to its preexisting condition.

D. The provisions of paragraphs A and B do not apply to infrastructure where the proposed infrastructure does not exceed 20 acres in land coverage.

11-01.3.0 HAZARDS

3.1 General. Whenever the Director of DSD determines that any existing excavation or embankment or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use or stability of a public way or drainage canal, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property, upon receipt of notice in writing from the building official, shall within the period specified therein repair or eliminated such excavation or embankment so as to eliminate the hazard and be in conformance with the requirements of this code.

11-01.4.0 GRADING PERMIT REQUIREMENTS

4.1. Permits Required. Except as exempted in DS 11-01.3.2., no person shall do any grading without first obtaining a grading permit from DSD . A separate permit shall be obtained for each site, and may cover both excavations and fills.

A. Application. The provisions of the Uniform Administrative Code Section 302.1 (UAC) are applicable to grading and in addition the application shall state the estimated quantities of work involved.

B. Grading Designation. Grading in excess of 5,000 cubic yards (3825 m3) shall be performed in accordance with the approved grading plan prepared by a civil engineer, and shall be designated as “engineered grading”. Grading involving less than 5,000 cubic yards (3825 m3) shall be designated “regulated grading” unless the permittee chooses to have the grading performed as engineered grading, or the Director determines that special conditions or unusual hazards exist, in which case grading shall conform to the engineered grading.

C. Engineered Grading Requirements. Application for grading permit shall be accompanied by two sets of plans and specifications, and supporting data consisting of a soils engineering report and engineering geology report. The plans and specifications shall be prepared and signed by an individual licensed by the state to prepare such plan or specifications when required by DSD. Specifications shall contain information covering construction and material requirements. Plans shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give location of the work, the name and address of the owner and the person by whom they were prepared.

   The plans shall include the following information.

   1. General vicinity of the proposed site.

   2. Property limits and accurate contours of existing ground and details of terrain and area drainage.

   3. Limiting dimensions, elevations or finish contours to be achieved by the grading, and proposed drainage channels and related construction.

   4. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work together with a map showing the drainage area and the estimated runoff of the area served by any drains.

   5. Location of any building or structures on the property where the work is to be performed and the location of any building or structures on land of adjacent owners which are within 15 feet (4572 mm) of the property or which may be affected by the proposed grading operations.

   6. Recommendations included in the soils engineering report and the engineering geology report shall be incorporated in the grading plans or specifications. When approved by DSD, specific recommendations contained in the soils engineering report and the engineering geology report, which are applicable to grading, may be included by reference.

   7. The dates of the soils engineering and engineering geology reports together with the names, addresses and phone numbers of the firms or individuals who prepared the reports.

D. Soils Engineering Report. The soils engineering report required by the International Building Code Section 1802.6 (IBC) shall include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures, including buttress fills, when necessary, and opinion on adequacy for the intended use of sites to be developed by the proposed grading as affected by soils engineering factors, including the stability of slopes.

E. Engineering Geology Report. The engineering geology report required by the IBC Section 1802.6 shall include adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors.

F. Regular Grading Requirements. Each application for a grading permit shall be accompanied by a plan in sufficient clarity to indicate the nature and extent of the work.

1. The plans shall give the location of the work, the name of the owner and the name of the person who prepared the plan. The plan shall include the following information:

a. General vicinity of the proposed site.

b. Limiting dimensions and depth of cut and fill.

c. Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within 15 feet (4572 mm) of the proposed grading.

G. Issuance. The provisions of UAC 303 are applicable to grading permits. DSD may require that grading operations and project designs to be modified if delays occur which incur weather-generated problems not considered at the time the permit was issued. DSD may require testing by the soils engineer. When DSD has cause to believe that geologic factors may be involved, the grading will be required to conform to engineered grading.

11-01.5.0 GRADING FEES

5.1 General. Fees shall be assessed in accordance with the provisions of this section or shall be as set forth in the fee schedule adopted by the jurisdiction. “For excavation and fill on the same building site, the fee shall be based on the volume of excavation or fill, whichever is greater.”

5.2 Plan Review Fees. When a plan or other data are required to be submitted, a plan review fee shall be paid at the time of submitting plans and specifications for review. Said plan review fee shall be as set forth in “The Development Standards”. Separate plan review fees shall apply to retaining walls or major drainage structures as required structures as requires elsewhere in this code. For excavation or fill, whichever is greater.

5.3 Grading Permit Fees. A fee for each grading permit shall be paid to DSD as set forth in “The Development Standard”. Separate permits and fees shall apply to retaining walls or major drainage structures as required elsewhere in the Development Standards. There shall be no separate charge for standard terrace drains and similar facilities.

11-01.6.0 BONDS

6.1. The Director of DSD may require bonds in such form and amounts as may be deemed necessary to assure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions. In lieu of a surety bond the applicant may file a cash bond or instrument of credit with DSD in an amount equal to that which would be required in the surety bond.

11-01.7.0 CUTS

7.1 General. Unless otherwise recommended in the approved soils engineering or geology report, cuts shall conform to the provisions of this section. In the absence of an approved soils engineering report, these provisions may be waived for minor cuts not intended to support structures.

7.2 Slope. The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than 1 unit vertical in 2 units horizontal (50% slope) unless the permittee furnishes a soils engineering or an engineering geology report, or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property.

11-01.8.0 FILLS

8.1. General requirements criteria for fill. This criteria applies to all non-residential developments, and all residential developments with lots that are less than 24,000 square feet, that are adjacent to an existing residential development or residentially zoned property (excepting multifamily developments greater than single story), or unsubdivided non-commercial property. This criteria does not apply to phase boundaries within a master planned development or to individual lots within the interior of a residential development, or to small swales and drainage rills.

A. Placement of fill in excess of two (2) feet [or a finished floor elevation (FFE) in excess of two (2) feet plus the slab thickness] above existing grade at any location in the outer one hundred (100) feet of the developing site (less any intervening non-developable property outside of the site) shall require:

1. Written justification based on engineering/technical reasons.

2. Written permission of the Director of the DSD (DSD).

3. Notification of the property owner(s) adjacent to the fill site (with copies to the Council Office and the Director of DSD) prior to the approval of a grading plan. Said notification shall include reference to this ordinance, the justification presented as the basis for the excess fill, the approval letter from DSD, and the name, address, & phone number of the owner/developer and the engineer of record. This notification shall occur early in the development process.

4. Preparation of a mitigation plan (i.e. additional setbacks, terracing, enhanced buffering/landscaping, etc.) acceptable to a simple majority of the notified property owners. The acceptability of the mitigation plan by the notified property owner(s) must be documented and made a part of the approved grading plan and permit. If the owner/developer and the notified property owner(s) cannot reach consensus on a mitigation plan within 15 working days of receipt of the property owners, the Director of DSD shall review the issues and information and then render a final decision. Monitoring of grading activities shall be the responsibility of the engineer of record and certification of FFE's shall be done by a registered land surveyor hired by the permittee. Regulation, inspection, control

of work, and enforcement of the above criteria shall be the responsibility of the Director of DSD as stated in DS 11-01.12.

8.2 Preparation of Ground. Fill slopes shall not be constructed on natural slopes steeper than 1 unit vertical in 2 units horizontal (50% slope). The ground surface shall be prepared to receive fill by removing vegetation, non-complying fill, topsoil and other unsuitable materials scarifying to provide a bond with the new fill and, where slopes are steeper than 1 unit vertical in 5 units horizontal (20% slope) and the height is greater than 5 feet (1524 mm), by benching into sound bedrock or other competent material as determined by the soils engineer. The bench under the toe of a fill on a slope steeper than 1 unit vertical in 5 units horizontal (20% slope) shall be at least 10 feet (3048 mm) wide. The area beyond the toe of fill shall be sloped for sheet overflow or a paved drain shall be provided. When fill is to be placed over a cut, the bench under the toe of fill shall be at least 10 feet (3048 mm) wide but the cut shall be made before placing the fill and acceptance by the soils engineer or engineering geologist or both as a suitable foundation for fill. (Figure 1)

8.3 Fill Material. Detrimental amounts of organic material shall not be permitted in fills. Except as permitted by DSD, no rock or similar irreducible material with a maximum dimension greater than 12 inches (305 mm) shall be buried or placed in fills.

EXCEPTION: DSD may permit placement of larger rock when the soils engineer properly devises a method of placement, and continuously inspects its placement and approves the fill stability. The following conditions shall also apply:

A. Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.

B. Rock sizes greater than 12 inches (305 mm) in maximum dimension shall be 10 feet (3048 mm) or more below grade, measured vertically.

C. Rocks shall be placed as to assure filling of all voids with well-graded soil.

8.4 Compaction. All fills shall be compacted to a minimum of 90 percent of maximum density.

8.5 Slope. The slopes of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes shall be no steeper than 1 unit vertical in 2 units horizontal (50% slope).

11-01.9.0 SETBACKS

9.1 General. Cut and fill slopes shall be set back from site boundaries in accordance with this section. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary. (Figure 2)

9.2 Top of Cut Slope. The top of cut slopes shall not be made nearer to a site boundary line than one fifth of the vertical height of cut with a minimum of 2 feet (610 mm) and a maximum of 10 feet (3048 mm). The setback may need to be increased for any required interceptor drains.

9.3 Toe of Fill Slope. The toe of fill slope shall be made not nearer to the site boundary line than one half of the height of the slope with a minimum of 2 feet (610 mm) and a maximum of 20 feet (6096 mm). Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as DSD deems necessary to protect the adjoining property from damage as a result of such grading. These precautions may include but are not limited to:

A. Additional setbacks.

B. Provisions for retaining or slough walls.

C. Mechanical or chemical treatment of the fill slope surface to minimize erosion.

D. Provisions for the control of surface waters.

9.4 Modification of Slope Location. The DSD may approve alternate setbacks. The DSD may require an investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.

11-01.10.0 DRAINAGE AND TERRACING

10.1 General. Unless otherwise indicated on the approved grading plan, drainage facilities and terracing shall conform to the provisions of this section for cut or fill slopes steeper than 1 unit vertical in 3 units horizontal (33.3% slope). “All drainage structures are to be constructed as designed and shall conform to plans approved by the jurisdiction, and in no case shall the drainage be altered as to how the water enters the property from the adjacent parcel or exits the construction site without written approval from the design engineer and government agencies.”

10.2 Terrace. Terraces at least 6 feet (1829 mm) in width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris except that where only one terrace is required, it shall be at midheight. For cut or fill slopes greater than 60 feet (18 288 mm) and up to 120 feet (36 576 mm) in vertical height, one terrace at approximately mid-height shall be 12 feet (3658 mm) in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet (36 576 mm) in height shall be designed by the civil engineer and approved by DSD. Suitable access shall be provided to permit proper cleaning and maintenance. Swales or ditches on terraces shall have a minimum gradient of 5 percent and must be paved with reinforced concrete not less than 3 inches (76 mm) in thickness or an approved equal paving. They shall have a minimum depth at the deepest point of 1 foot (305 mm) and a minimum paved width of 5 feet (1524 mm). A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1254.2 m2) (projected) without discharging into a down drain.

10.3 Subsurface Drainage. Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.

10.4 Disposal. All drainage facilities shall be designed to carry waters to the nearest practicable drainage way approved by the DSD or other appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of non-erosive downdrains or other devices. Building pads shall have a drainage gradient of 2 percent toward approved drainage facilities, unless waived by theDirector of DSD.

EXCEPTION: The gradient from the building pad may be 1 percent if all of the following conditions exist throughout the permit area:
1. No proposed fills are greater than 10 feet (3048 mm) in maximum depth.
2. No proposed finish cut or fill slope faces have a vertical height in excess of 10 feet (3048 mm).
3. No existing slope faces, which have a slope face steeper than 1 unit vertical in 10 units horizontal (10% slope), have a vertical height in excess of 10 feet (3048 mm).

10.5 Interceptor Drains. Paved interceptor drains shall be installed along the top of all cut slopes where the tributary drainage area above slopes toward the cut and has a drainage

path greater than 40 feet (12 192 mm) measured horizontally. Interceptor drains shall be paved with a minimum of 3 inches (76 mm) of concrete or gunite and reinforced. They shall have a minimum depth of 12 inches (305 mm) and a minimum paved width of 30 inches (762 mm) measured horizontally across the drain. The slope of drain shall be approved by the Director of DSD.

11-01.11.0 EROSION CONTROL

11.1 Slopes. The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.

11.2 Other Devices. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

11-01.12.0 GRADING INSPECTION

12.1 General. Grading operations for which a permit is required shall be subject to inspection by DSD. Professional inspection of grading operations shall be provided by the civil engineer, soils engineer and the engineering geologist retained to provide such services in accordance with DS 11-01.12.5 for engineered grading and as required by the Director DSD for regular grading.

12.2 Civil Engineer. The civil engineer shall provide professional inspection within such engineer's area of technical specialty, which shall consist of observation and review as to the establishment of line, grade and surface drainage of the development area. If revised plans are required during the course of the work they shall be prepared by the civil engineer.

12.3 Soils Engineer. The soils engineer shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The soils engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this chapter. Revised recommendations relating to conditions differing from the approved soils engineering and engineering geology reports shall be submitted to the permittee, the Director of DSD and the civil engineer.

12.4 Engineering Geologist. The engineering geologist shall provide professional inspection within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the soils engineer.

12.5 Permittee. The permittee shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this code, and the permittee shall engage consultants, if required, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the consultants, the contractor and theDirector. In the event of changed conditions, the permittee shall be responsible for informing the Director of DSD of such change and shall provide revised plans for approval.

12.6 Development Services Department. The DSD shall inspect the project at the various stages of work requiring approval to determine that adequate control is being exercised by the professional consultants.

12.7 Notification of Non-compliance. If, in the course of fulfilling their respective duties under this chapter, the civil engineer, the soils engineer or the engineering geologist finds that the work is not being done in conformance with this chapter or the approved grading plans, the discrepancies shall be reported immediately in writing to the permittee and to theDirector of DSD.

12.8 Transfer of Responsibility. If the civil engineer, the soils engineer, or the engineering geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the permittee to notify the Director of DSD in writing of such change prior to the recommencement of such grading.

11-01.13.0 Reserved
11-01.14.0 Reserved
11-01.15.0 Reserved

11-01.16.0 COMPLETION OF WORK

16.1 Final Reports. Upon completion of the rough grading work and at the final completion of the work, the following reports and drawings and supplements thereto are required for engineered grading or when professional inspection is performed for regular grading, as applicable.

A. An as-built grading plan prepared by the civil engineer retained to provide such services in accordance with DS 11-01.12.5 showing original ground surface elevations, as-graded ground surface elevations, lot drainage patterns, and the locations and elevations of surface drainage of facilities and of the outlets of subsurface drains. As-constructed locations, elevations and details of subsurface drains shall be shown as reported by the soils engineer. Civil engineers shall state that to the best of their knowledge the work within their area of responsibility was done in accordance with the final approved grading plan.

B. A report prepared by the soils engineer retained to provide such services in accordance with DS 11-01.12.3 including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigations report. Soils engineers shall submit statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions of this chapter.

C. A report prepared by the engineering geologist retained to provide such services in accordance with DS 11-01.12.5 including a final description of the geology of the site and any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. Engineering geologists shall submit statement that, to the best of their knowledge, the work within their area of responsibility is in accordance with the approved engineering geologist report and applicable provisions of this chapter.

D. The Engineer of Record shall submit in a form prescribed by the Director of DSD a statement of conformance to said as-built plan and the specifications.

16.2 Notifications of Completion. The permitee shall notify the DSD when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan, and the required reports have been submitted.

11-01.17 MODIFICATIONS, ENFORCEMENT AND APPEALS.

17.1 Modifications. A modification to the requirements of this Standard may be requested of the Community Design Review Committee (CDRC) provided the modification is found to be justified and consistent with the intent and purpose of this Standard. The CDRC review and decision will be in accordance with Administrative Directive 1.02-9. Administrative Directive 1.02-9 is listed in the Development Standards book as Standard 1-01.0. A variance to the *LUC* requirements listed in this Standard must be requested from the Board of Adjustment in accordance with Sec. 5.4.3.3 of the *LUC*. Under certain circumstances, modifications can be requested under the Project Design Option (PDO) provisions of the *LUC* in accordance with Sec. 5.3.5 and Sec. 5.4.3.7.

17.2 The DSD is responsible for enforcing the provisions of the Standard.

17.3 Appeals. Appeals to decisions made by the CDRC under this Standard are to the Zoning Examiner. The process of appeals will follow the format established in Sec. 5.4.4.1 of the *LUC*.

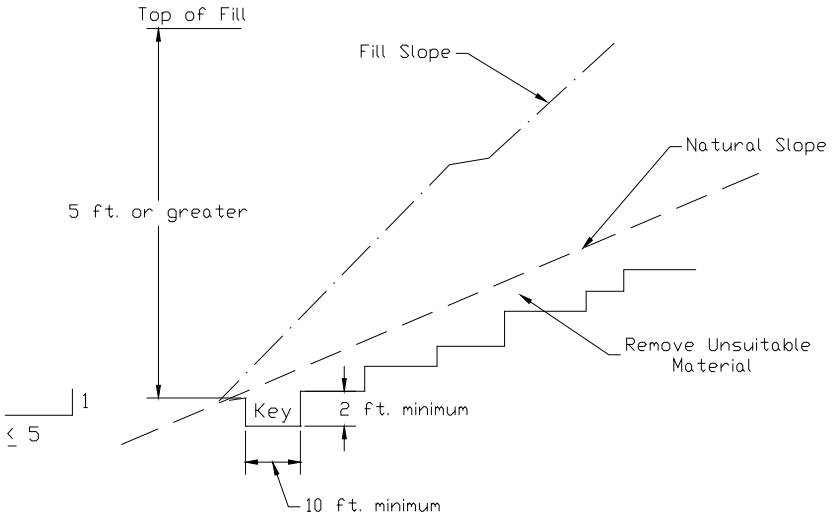

Figure 1
BENCHING DETAILS

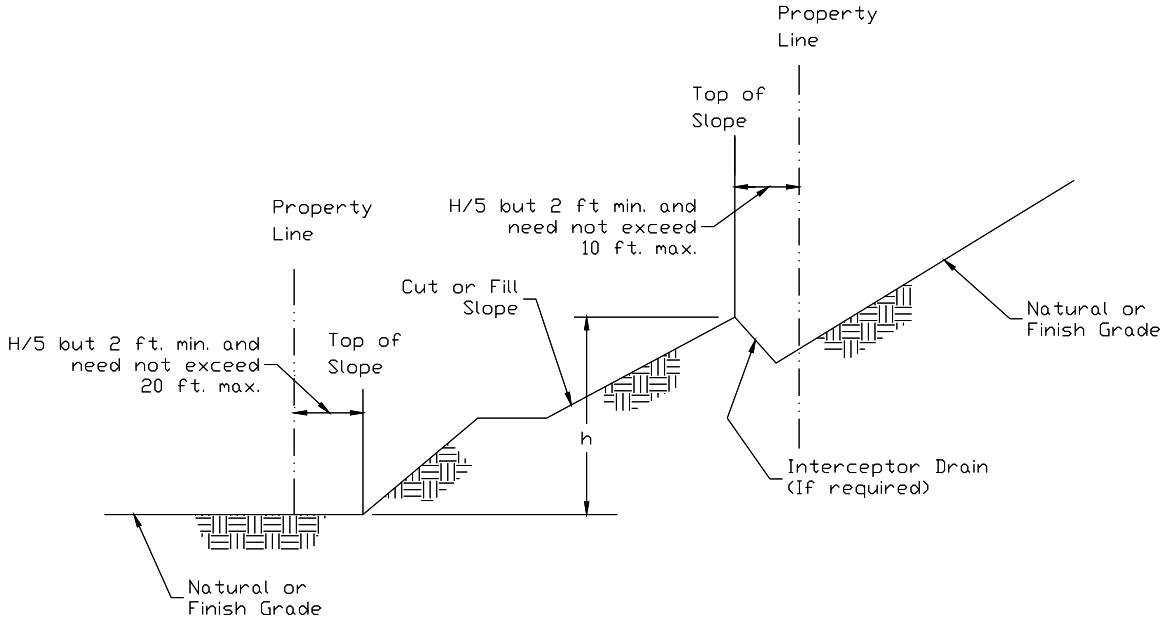

Figure 2
DRAINAGE DIMENSIONS

SECTION 8 – DEFINITIONS
The definitions listed hereunder shall be construed as specified in the section.

APPROVAL shall mean the proposed work or completed work conforms to this chapter in the opinions of the Building Official.

AS GRADED is the extent of the surface conditions on completion of grading.

BENCH is relatively level step excavated into earth material on which fill is to be placed.

BORROW is earth material acquired from an off-site location for use in grading on a site.

COMPACTION is the densification of a fill by mechanical means.

EARTH MATERIAL is any rock, natural soil, or fill any combination thereof.

EROSION is the wearing away of the ground surface as a result of the movement of wind, water or ice.

EXCAVATION is the mechanical removal of earth material.

FILL is a deposit of earth material placed by artificial means.

GRADE is the vertical location of the ground surface.

EXISTING GRADE is the grade prior to grading.

FINISH GRADE is the final grade of the site, which conforms to the approved plan.

GRADING is any excavating or filling combination thereof.

GRUBBING is the removal of any vegetation from the existing grade of the land for purposes of land development. (Inventory and boxing of native vegetation shall not constitute grubbing).

INFRASTRUCTURE shall mean all structures or improvements to the land such as roads or facilities for the provision of gas, electric, water, drainage, or communications, which are necessary to support development on abutting property.

KEY is a designed compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

PROFESSIONAL INSPECTION is the inspection required by this code to be performed by the civil engineer, soils engineer or engineering geologist. Such inspections include that performed by person supervised by such engineers or geologists and shall be sufficient to form an opinion relating to the conduct of the work.

SITE is any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

SLOPE is an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

SOILS ENGINEER (GEOTECHNICAL ENGINEER) is an engineer experienced and knowledgeable in the practice of soils engineering (geotechnical) engineering.

TERRACE is a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.